

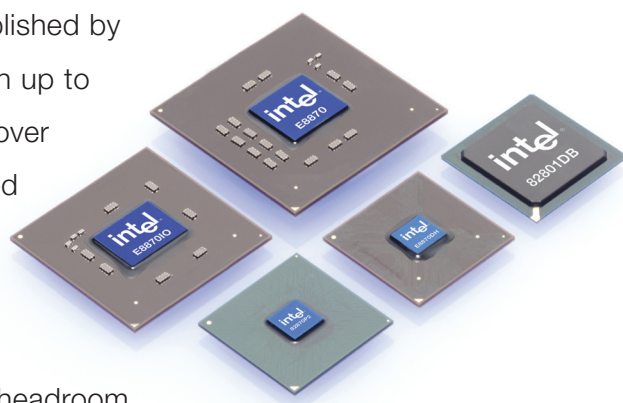


Intel® E8870 Chipset

The Next Generation of Itanium® Architecture-based Server Chipset Technology

The Intel® Platform Advantage

Itanium® 2-based platforms build on and extend the foundation established by the Intel Itanium architecture with up to 1.5–2.0x performance increase over the first generation Itanium-based systems. The Itanium 2-based platform architecture delivers the performance your enterprise needs today and the headroom needed for next-generation technology, software applications, and network innovations.



Intel's comprehensive efforts to enable the industry have ensured fast deployment of next-generation application and hardware solutions, maximizing IT investment now and into the future. Our world-class platform validation creates a robust foundation for both current and emerging applications, while minimizing deployment risks. Intel's extensive software development eases the process of product integration and adds to the performance of the platform.

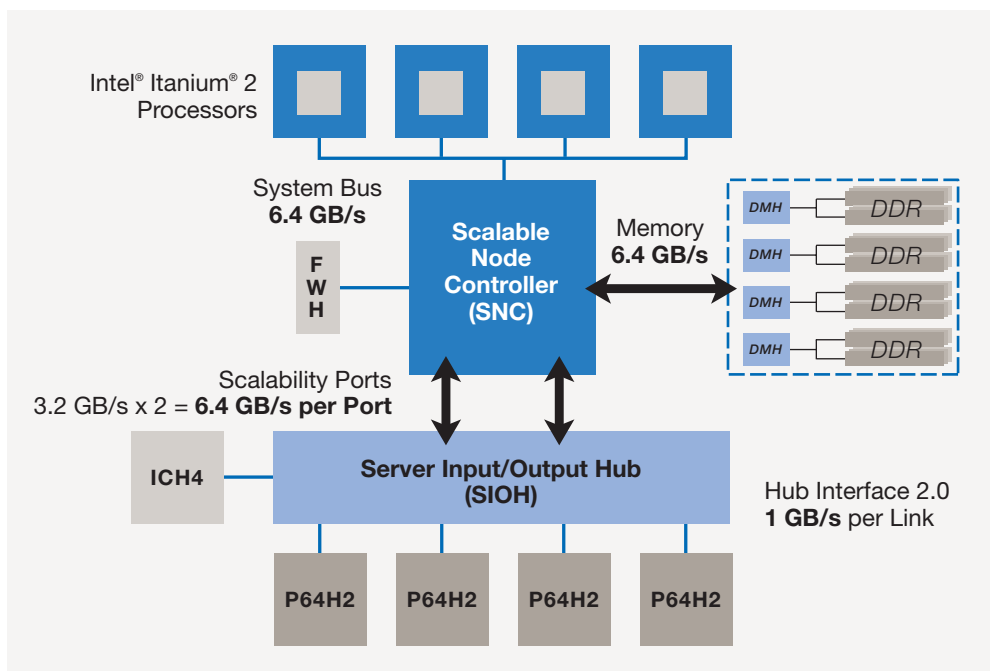
The Intel® E8870 chipset is the best solution to meet the demanding needs of high-end 2-way and 4-way server platforms. A balanced system architecture combined with excellent RASUM features makes the Intel® E8870 chipset a stable technology for your e-Business solutions today and tomorrow.

New Features Deliver Greater Performance

Optimized for the Intel® Itanium® 2 Processor: The Intel E8870 chipset-based server platform takes full advantage of the Intel Itanium 2 processor to deliver unparalleled compute power, and value for large database, business intelligence, Enterprise Resource Planning (ERP) and other high-end, heavy load applications. The 128 bit processor system bus can support up to four processors with 400 Mega Transfers per second (MT/sec) peak data transfer rate, providing up to 6.4 Gigabytes per second (GB/sec) bandwidth. This feature increases data transfer efficiency to and from the Itanium 2 processors, system memory and I/O.

Balanced Chipset Architecture: The processor system bus can support up to four processors with 400 MT/sec peak data transfer rate, providing up to 6.4 GB/sec bandwidth. With an 800 MHz channel frequency and 6.4 GB/sec in bandwidth, the memory bus provides higher throughput, headroom and improved scalability. Two scalability ports connect the scalable node controller (SNC) to the server input/output hub (SIOH) providing 6.4 GB/sec per port. Well-balanced system bus, Memory and I/O eliminate system bottlenecks and increases work load efficiency resulting in optimum performance for data intensive applications.

High Memory Capacity Enabled Through DDR Memory Hub (DMH): Today's server applications depend on the strength and dependability of their memory subsystems. The Intel E8870 chipset features a large memory capacity to meet the needs of these highly demanding applications. Four high-speed memory channels operate in lock step to provide up to 6.4 GB/sec of aggregate memory bandwidth. The memory bus is well balanced with the rest of the system resulting in optimized performance for the entire platform. Each DMH is connected to a high-speed channel providing a maximum of eight DIMM slots with an aggregate of thirty-two memory slots per processor node. Maximum capacity supported per node is 128 Gigabytes using 4 GB DIMMs. Together these features improve system performance by increasing memory buffering capacity and reducing real-time access to storage.



Flexible I/O Options: Up to four Intel 64-bit PCI/PCI-X Controller Hub 2 (P64H2) devices can connect to the SIOH. Each P64H2 contains two independent 64-bit, 133 MHz PCI-X interfaces and two PCI hot-plug controllers, one for each PCI-X interface. These features allow I/O flexibility including platform configuration options with up to eight high-performance 64-bit, 133 MHz PCI-X devices. The Intel Gigabit Ethernet controller and the I/O processor can attach to the P64H2 component to provide another layer of I/O configuration flexibility. The high performance PCI/PCI-X provides legacy PCI connectivity while improving performance and protocol efficiency with PCI-X support.

Reliability, Availability, Serviceability, Usability and Manageability (RASUM):

The Intel E8870 chipset-based server platform establishes a higher level of expectation for the enterprise system market providing features such as:

- Hot-plug modules for processor and memory providing zero downtime for repair and upgrade
- Memory scrubbing to allow for proactive repair and prediction
- End-to-end ECC protection and correction for all data transfers ensuring data integrity across the entire system
- Degraded configurations which allow the system to continue to run after fault
- Error protection and recovery between the various chipset component interfaces

These features combine to yield a more reliable platform by delivering advanced Reliability, Availability, Serviceability, Usability and Manageability.

The Intel® E8870 chipset is the best solution to meet the demanding needs of high-end 2-way and 4-way server platforms. A balanced system architecture combined with excellent RASUM features makes the Intel E8870 chipset a stable technology for your e-Business solutions today and tomorrow.

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